ZIMKIN, I. N.; NADGORNYY, E. M.; SMIRNOV, B. I.

Studying whisker crystals of sodium chloride by the microradiographic method. Fiz. tver. tela 5 no.1:170-176 Ja '63. (MIRA 16:1)

1. Fiziko-tekhnicheskiy institut imeni A. F. Ioffe AN SSSR, Leningrad.

(Microradiography) (Salt crystals)

S/181/63/005/004/004/047
B102/B186

AUTHORS: Madgornyy, E. M., and Stepanov, A. V.

TITLE: Investigation of dislocations in NaCl crystals

PERIODICAL: Fizika tverdogo tela, v. 5, no. 4, 1963, 998-1005

TEXT: Three groups of NaCl single crystals with different contents of Ca impurity ($<10^{-3}$%, I; 10^{-3}%, II; and 10^{-2}%, III) were examined as to their dislocations and mechanical properties after annealing according to various modes. The dislocations were observed both by an optical method (ZhRFKhO, 58, 817, 1926) and by selective etching with a 10% $CaCl_2$ solution in methyl alcohol to which 20% H_2O was added. With the exception of several special cases the crystals were heated up to 680°C during 8 hrs and, after a holding time of 48 hrs, cooled at a rate of 5°/hr. In order to clarify the effect of holding time and temperature, some specimens were held at temperatures between 300 and 500°C for different times and then cooled at rates from 15 to 20°/min. The optical yield point, the tangential stress and the relative background density were determined. Group III was found to show

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the following peculiarities as compared with I: (1) a reduction of the normal etching rate of edge and screw dislocations by about 30% when the tangential etching rate remains constant; (2) absence of etching wells which are less deep than the usual dislocation well along the traces of the edge and screw dislocations; (3) the appearance of a background, flat etching wells of different sizes in slowly cooled crystals and change in the background density in the case of rapid cooling. The background is due to the presence of the Ca impurities and is assumed to be related to the accumulation of point defects. A clear relation is found to exist between the background density of group III and the yield point. There are 6 figures and 2 tables.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR Leningrad (Physicotechnical Institute imeni A. F. Ioffe AS USSR, Leningrad)

SUBMITTED: October 4, 1962

S/181/63/005/004/005/047
B102/B186

AUTHORS: Kadgornyy, E. M., and Stepanov, A. V.

TITLE: Artificial slip formation and dislocation structure in natrium chloride crystals

PERIODICAL: Fizika tverdogo tela, v. 5, no. 4, 1963, 1006 - 1020

TEXT: The authors continue previous investigations (FTT, v. 5, no. 4, 998) by studying the dislocation structure arising in NaCl crystals of differing purity by the method of selective etching. Production structure and properties of the dislocation rosettes, such as pricking rosettes, impact and notch rosettes are investigated. These rosettes arise at the beginning of artificial slippage. The motion of the dislocations under load as well as after removing the load was studied, and the character of slip and transverse slip was analyzed for three types of NaCl single crystals with Ca impurities $<10^{-3}$% (I), $\sim10^{-3}$% (II) and $\sim10^{-2}$% (III). In general, the behavior of the dislocations and the slip characteristics depend on the Ca concentration, i.e. there exists a considerable difference between I on the one and II and III on the other hand. E.g. after removing the load, the inner stresses cause a considerable dislocation redistribution in I, and

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virtually do not affect II and III. The differences in the dislocation structures of these types is explained by the different character of transverse slippage observed experimentally. The mechanism of transverse slippage is mainly determined by the Ca impurities. There are 16 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR Leningrad (Physicotechnical Institute imeni A. F. Ioffe AS USSR, Leningrad)

SUBMITTED: October 4, 1962

S/181/63/005/004/006/047
B102/B186

AUTHORS: Gutmanas, E. Yu., Nadgornyy, E. M., and Stepanov, A. V.

TITLE: Investigation of the movement of dislocations in sodium chloride crystals

PERIODICAL: Fizika tverdogo tela, v. 5, no. 4, 1963, 1021 - 1026

TEXT: The authors studied the motion of single dislocations in monocrystalline NaCl samples of different purity (Ca content $<10^{-3}$% (I), $\sim 10^{-2}$% (III)) in a large interval of loads applied, and measured the velocities of such dislocations. As in the previous investigations (cf. present periodical) the method of selective etching was applied to measure the load dependence of the velocities of screw and edge dislocations. For the investigations crystals were chosen with no more than 10^4 dislocations per cm^2 and block areas of about 1 mm^2; the dislocations were observed at the {100} slip plane. The graphs obtained for I and III, $\log v_d = f(\log \tau)$, τ being the load (g/mm^2), were compared with the corresponding curves obtained for LiF by Johnston and Gilman (J. Appl. Phys., 30, 129, 1959); comparison

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is made for two types of LiF: LiF_T with high and LiF_M with low yield point. The $v(\tau)$ curve obtained for III coincides with that for LiF_M. In general, $v_d \sim \tau^n$ is valid for $v_d > 10^{-4} - 10^{-5}$ cm/sec, where $n \simeq 8$ (for I), $n \simeq 17$ (III), $n \simeq 25$ (LiF_T). Not only does the slope of the curves increase with I→III→LiF_T but also the curves become shifted toward higher τ. In the case of small velocities ($< 10^{-4} - 10^{-5}$ cm/sec) $v_d = A_1 e^{B_1 \tau}$, with $A_1 = 3.5 \cdot 10^{-8}$ ($1.0 \cdot 10^{-12}$) and $B_1 = 154$ (80) for I (III). The relation $v = A_2 e^{-B/\tau}$, proposed for LiF, may be applied to NaCl only in the case of high velocities. There are 5 figures and 2 tables.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR Leningrad (Physicotechnical Institute imeni A. F. Ioffe AS USSR, Leningrad)

SUBMITTED: October 4, 1962

NADGORNYY, E.M.

Dislocation energy and etching pits in sodium chlorine crystals.
Fiz. tver tela 5 no.9:2723-2725 S '63. (MIRA 16:12)

1. Fiziko-tekhnicheskiy institut im. A.F.Ioffe AN SSSR, Leningrad.

NADGORNYY, E.M.; STEPANOV, A.V.

Artificial shift formation and the dislocation structure of sodium chloride crystals. Kristallografiia 8 no.4:641-651 Jl-Ag '63. (MIRA 16:9)

1. Fiziko-tekhnicheskiy institut imeni A.F. Ioffe.
(Dislocations in crystals)

L 4021-66 EWP(e)/EWT(m)/EWP(i) WH

ACCESSION NR: AP5022276 UR/0363/65/001/007/1221/1228
54-114

18
15
B

AUTHOR: Nadgornyy, E. M.; Grigor'yeva, L. F.; Ivanov, A. P.

TITLE: Mechanical properties of synthetic fibrous fluor-amphiboles and certain natural asbestoses 15

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 7, 1965, 1221-1228

TOPIC TAGS: asbestos, fluoride mineral, fiber crystal

ABSTRACT: Mechanical properties of crocidolite asbestos from an African deposit, anthophyllite asbestos from the Sysert' deposit, chrysotile asbestos from the Bazhenovo deposit, and two types of synthetic fibrous fluor-amphiboles (lithium fluor-amphibole and magnesium fluor-richterite) were investigated. Values of the tensile strength and stress-strain diagrams for fibers of various diameters were obtained for each material. From these diagrams, a qualitative estimate of Young's modulus in the direction of the tension is made. Analytical relations are derived which permit the calculation of the strength of fibers of various diameters. It is found that several mechanical properties of natural asbestoses and synthetic fluor-amphiboles (high tensile strength, dependence of

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L 4021-66

ACCESSION NR: AP5022275

3

strenth on diameter) are identical to the properties of filamentary crystals (whiskers). Certain differences in the mechanical properties of the fibers of these materials are apparently due to structural differences. A possible mechanism of the rupture of fibers of natural asbestoses and synthetic fluor-amphiboles is discussed.

"The authors thank A. V. Stepanov, Doctor of Mathematical Sciences, and A. D. Fedoseyev, Doctor of Technical Sciences, for their joint review of the results."

Orig. art. has: 8 figures, 3 tables, and 5 formulas.

ASSOCIATION: Institut khimii silikatov im. I. V. Grebenshchikova Akademii nauk SSSR (Institute of Silicate Chemistry, Academy of Sciences SSSR)

SUBMITTED: 02Mar65 ENCL: 00 SUB CODE: MT

NO REF SOV: 009 OTHER: 005

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135920001-9"

L 22960-66 EWP(j)/EWT(m)/EWP(e) RM/WH

ACC NR: AP6013353 SOURCE CODE: UR/0363/66/002/004/0761/0763

41
13

AUTHOR: Nadgornyy, E. M.; Grigor'yeva, L. F.; Ivanov, A. P.

ORG: Institute of the Chemistry of Silicates im. I. V. Grebenshchikov, Academy of Sciences SSSR (Institut khimii silikatov Akademii nauk SSSR)

TITLE: The effect of heat treatment on mechanical properties of natural and synthetic amphibole fibers

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 4, 1966, 761-763

TOPIC TAGS: asbestos product, synthetic fiber, fluoroamphibole fiber, heat resistance, tensile strength

ABSTRACT: The relative tensile strength at room temperature has been determined in fibers of synthetic lithium-magnesium fluoroamphibole $Li_2Mg_6[Si_8O_{22}]F_2$, synthetic fluororichterite $Na_2Mg_6[Si_8O_{22}]F_2$, and natural crocidolite asbestos which were heat-treated at a temperature in the 200-800C range. These determinations were necessary to supply data on the effect of heat treatment on mechanical properties of the fibers which are important for high temperature technology because of their high heat resistance. All data in this study were related to the fibers of 1.5 μ in diameter.

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2

Card 1/2 UDC 666.3

L 22960-66

ACC NR: AP6013353 O

The data showed that the relative tensile strength σ/σ^{o} (where σ^{o} is tensile strength of untreated fiber) of a fiber heat-treated at a given temperature was independent of the time of heat treatment within a 3—48 hr range. The σ/σ^{o} value of the crocidolite fibers started to decrease when heat-treatment temperature exceeded 250C, while the σ/σ^{o} value of the synthetic fluoroamphibole fibers started to decrease only after heat-treatment at 400—450C. The cause of this decrease in strength could not be ascertained by crystallooptical, x-ray, or chemical analysis of heat-treated fibers. Further study is in progress on the kinetics of the decrease in strength and changes in texture of the heat-treated fibers. Orig. art. has: 1 figure. [JK]

SUB CODE: 11/ SUBM DATE: 31Jul65/ ORIG REF: 004/ OTH REF: 001/ ATD PRESS 4237

Card 2/2

L 04792-67 EWT(l)/EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) JD/GG

ACC NR: AP6024463 SOURCE CODE: UR/0181/66/008/007/2048/2053

AUTHOR: Nadgornyy, E. M.; Smirnov, B. I. 40 B

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSSR, Leningrad (Fiziko-tekhnicheskiy institut AN SSSR)

TITLE: Connection between the mobility of dislocations and the mechanical characteristics of crystals under inhomogeneous deformation [Reported at the All-Union Conference on Dislocations and Mechanical Properties of Crystals, Odessa, May 1964]

SOURCE: Fizika tverdogo tela, v. 8, no. 7, 1966, 2048-2053

TOPIC TAGS: crystal dislocation phenomenon, crystal deformation, crystal property, plastic deformation

ABSTRACT: After pointing out in the introduction that many of the simplifying assumptions made in the theoretical calculations of the deformation resistance are not borne out in practice, the authors consider the connection between the macroscopic parameters of plastic deformation (stress τ, rate of displacement of the testing machine clamps $\dot{s}$, delay time t_0, and length of samples), with microscopic characteristics pertaining to individual dislocations and the dislocation structure as a whole (the exponent m in the formula for the dislocation velocity vs. stress, the number N_0 of glide bands, and the rate ω of the lateral growth of the glide bands) under less general assumptions, especially without the assumption that the deformation in the sample is uniform. The following relations are obtained

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$$\tau_s \sim \left(\frac{\dot{s}}{N_0}\right)^{1/m}, \quad t_0 \sim \tau^{-m}, \quad \omega \sim \tau^m$$

and agree with the available experimental data. The results hold true for all crystals in which the deformation occurs via generation of glide bands and their lateral growth, particularly for metals with body-centered cubic lattice. They also hold for polycrystals in which the deformation takes place by passage of Luders bands. Orig. art. has: 10 formulas.

SUB CODE: 20/ SUBM DATE: 03Dec65/ ORIG REF: 003/ OTH REF: 012

LIPNITSKIY, M.E., kandidat tekhnicheskikh nauk; NADGORNYY, M.P., inzhener.

Manufacture of large reinforced-concrete panels used for enclosing industrial plants. Stroi.prom. 31 no.6:2-5 Je '53. (MLRA 6:7)
(Precast concrete construction)

NADGORNYY, M.P., inzhener; LIPNITSKIY, M.Ye., inzhener; KOZLOV, P.V., inzhener

Reinforced concrete ribbed panels for beamless floors of industrial buildings developed by the Leningrad State Planning Institute of Construction. Rats. i izobr. predl. v stroi. no.81:11-12 '54. (MLRA 8:6)

(Floors, Concrete)

LIPNITSKIY,M.Ye., kandidat tekhnicheskikh nauk;NADGORNYY,M.P., inzhener

Reinforced concrete wall structures designed for industrial plants.
Bet.i zhel.-bet. no.5:183-188 Ag '55. (MLRA 8:9)
(Reinforced concrete) (Concrete slabs)

NADGORNYY, M.P., inzh.

Some aspects of planning and building ore-dressing enterprises in the Krivoy Rog Basin. Prom. stroi. 37 no.4:14-20 Ap '59.
(MIRA 12:6)

1.Gosudarstvennyy proyektnyy institut, Leningradskiy Promstroyproyekt.
(Krivoy Rog Basin--Factories--Design and construction)
(Ore dressing)

MAKOGONYY, M.P., inzh.

Designs of titanium-magnesium shops. Prom.stroi. 38 no.2:13-18 '60. (MIRA 13:5)

1. Lenpromstroyproyekt (for Kuznetsova).

(Titanium) (Corrosion a nd anticorrosives)

MARGOLIN, A.G., inzh.; RAKOV, M.V., inzh.; Prinimal uchastiye BRASLAVSKIY, B.A., arkhitektor; NADGORNYY, M.P., inzh., nauchn. red.; ROTENBERG, A.S., red.izd-va; PUL'KINA, Ye.A., tekhn. red.

[Large-panel exterior wall elements for industrial buildings] Krupnopanel'nye stenovye ograzhdaiushchie konstruktsii promyshlennykh zdanii. Leningrad, Gosstroiizdat, 1963. 142 p. (MIRA 17:2)

1. Lenpromstroyproyekt (for Margolin, Rakov, Braslavskiy).

PESHIKOV, F.V.; NADGORNYY, Sh.Sh., model'yer

New developments in the design of warm women's footwear. Kozh.-obuv.prom. 5 no.4:27-29 Ap '63. (MIRA 16:5)

1. Starshiy model'yer Doma modeley obuvi (for Peshikov).
(Shoe manufacture) (Clothing, Cold weather)

NADGORNYY, V. P.

40739

S/120/62/000/004/004/047
E194/E420

AUTHORS: Monoszon, N.A., Stolov, A.M., Gashev, M.A., Spevakova, F.M., Yavno, A.Kh., Kornakov, Ye.V., Kulakov, F.M., Nadgornyy, V.P., Gorshkova, Ye.G.

TITLE: The supply system for the electromagnet of a proton-synchrotron of 7 Gev

PERIODICAL: Pribory i tekhnika eksperimenta, no.4, 1962, 27-33

TEXT: The article describes the supply system for an electromagnet, the field of which increases at the steady rate of 6.7×10^3 Oe/sec to reach a maximum value of 9300 Oe in 1.55 sec and then falls off exponentially in 0.8 sec, the repetition frequency is 10 to 12 cycles per minutes. The voltage on the electromagnet is increased from 5000 to 10250 V with a maximum current of 2500 A. An induction motor of 3500 kW, 6 kV, 740 rpm drives through a fluid coupling a 6 phase alternator of peak output 37500 kW, 8.2 kV, and an auxiliary generator of 250 kW, 380 V for auxiliary supply to the 12-phase ignitron rectifier. During the current decrement period the rectifier operates as an inverter. A description of the smoothing circuit

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is given. Particular fault conditions of the circuit are analysed and the protective devices fully described. The performance is illustrated by oscillograms. Schematic and block circuit diagrams are given and an outline drawing of the ignitrons. There are 8 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury GKAE (Scientific Research Institute for Electrophysical Apparatus GKAE)

SUBMITTED: April 10, 1962

MONOSZON, N.A.; STOLOV, A.M.; GASHEV, M.A.; SPEVAKOVA, F.M.; YAVNO, A.Kh.; KORNAKOV, Ye.V.; KULAKOV, F.M.; MADGORNYY, V.P.; GORSHKOVA, Ye.G.

Power supply system of the electromagnet of the 7 bev. proton synchrotron. Prib. i tekh. eksp. 7 no.4:27-33 Jl-Ag '62. (MIRA 16:4)

1. Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR.

(Electromagnets) (Synchrotron)

KRAUS,Lj.; NADHERNY, J.

Pharmacc-anatomical study of the leaves of the family Daucaceae.
II. Apioideae — Scandicinae. Cesk. farm. 13 no.4:173-178 My'64

NADIKOV, M.Ye.

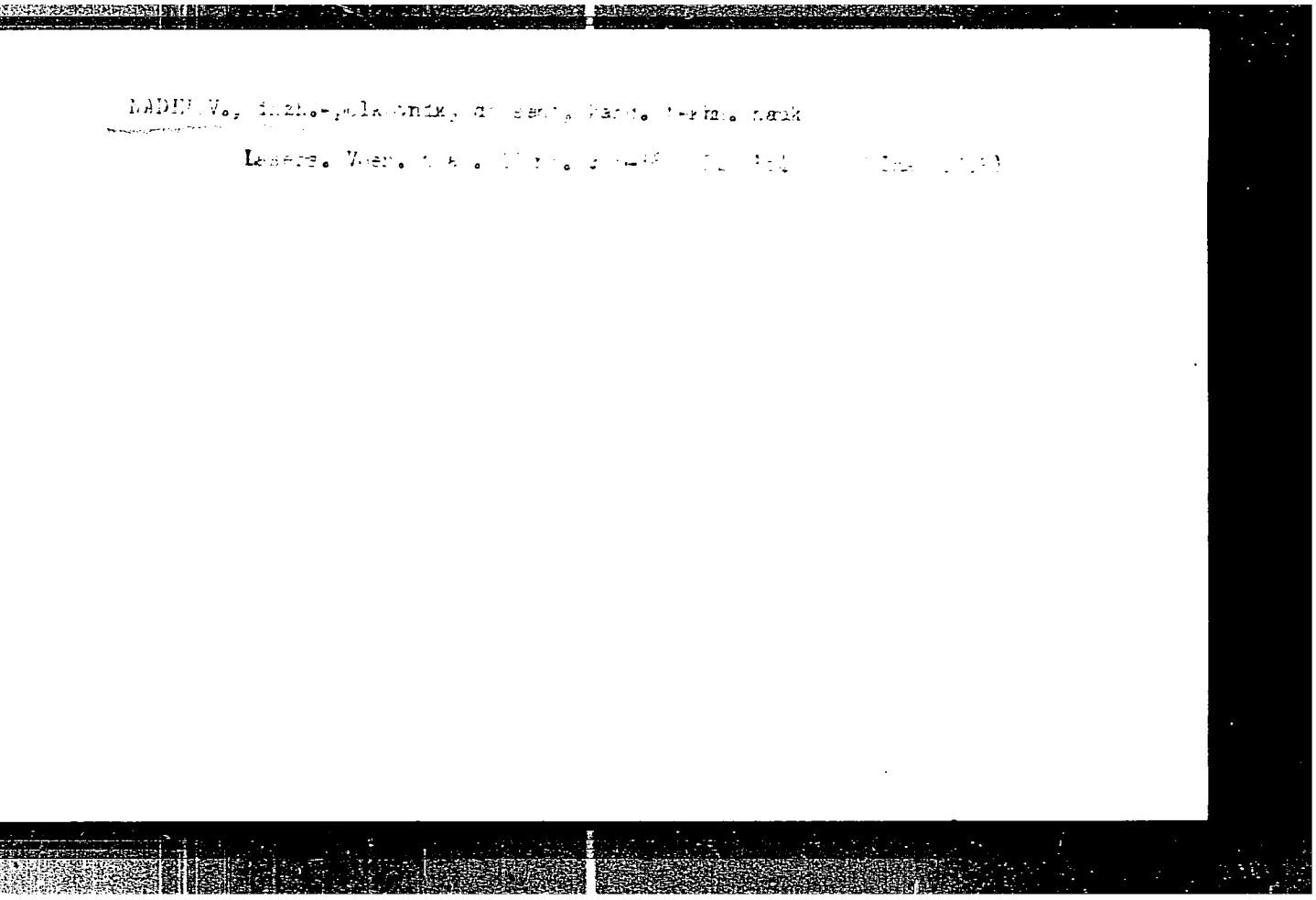
Equipment for feeding the coal and clay emulsion to pug mills.
Lit. proizv. no.12:36 D '65. (MIRA 18:12)

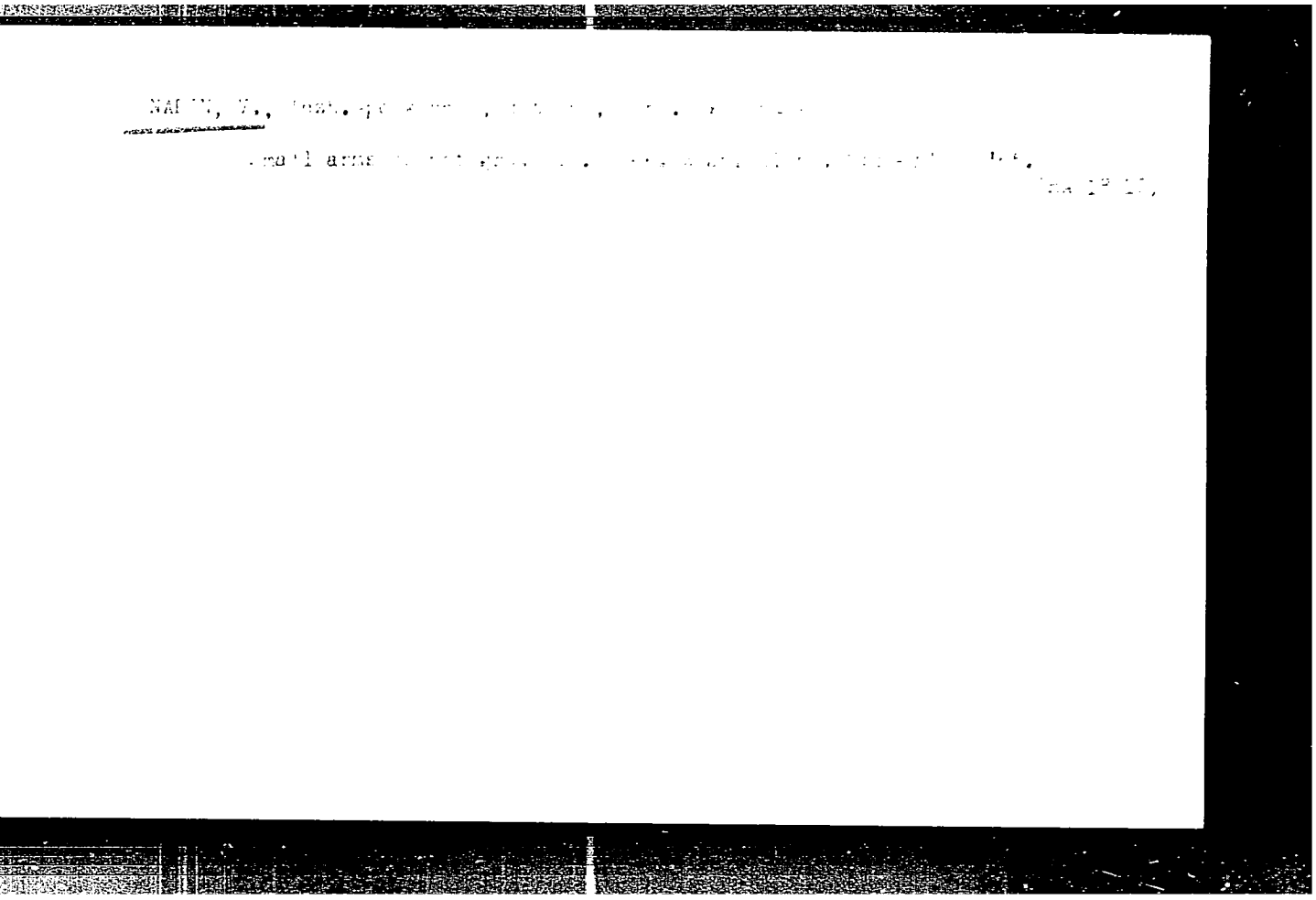
MADIN, V., podpolkovnik, dotsent, kand. tekhn. nauk

Mortars are powerful weapons. Voen. znan. 39 no.12:20-21 D '63. (MIRA 17:1)

NADIN, V., inzh.-podpolkovnik, kand.tekhn.nauk, dotsent

Multistage rockets. Voen. znan. 40 no.2:34-35 F '64. (MIRA 17:2)





NADIN, V., inzh.-polkovnik, kand. tekhn. nauk, dotsent

Pockets and distances. Voen. znan. [illegible] no.2:34-[illegible] F '[illegible].
(MIR [illegible]:1

NADINIC, M.

Construction of the Senj Hydroelectric Plant. p. 203.

ENERGIJA. (Zajednica elektroprivrednih poduzeca Hrvatske i Institut za elektroprivredu u Zagrebu) Zagreb, Vol. 8, no. 7/8, July/Aug. 1959.

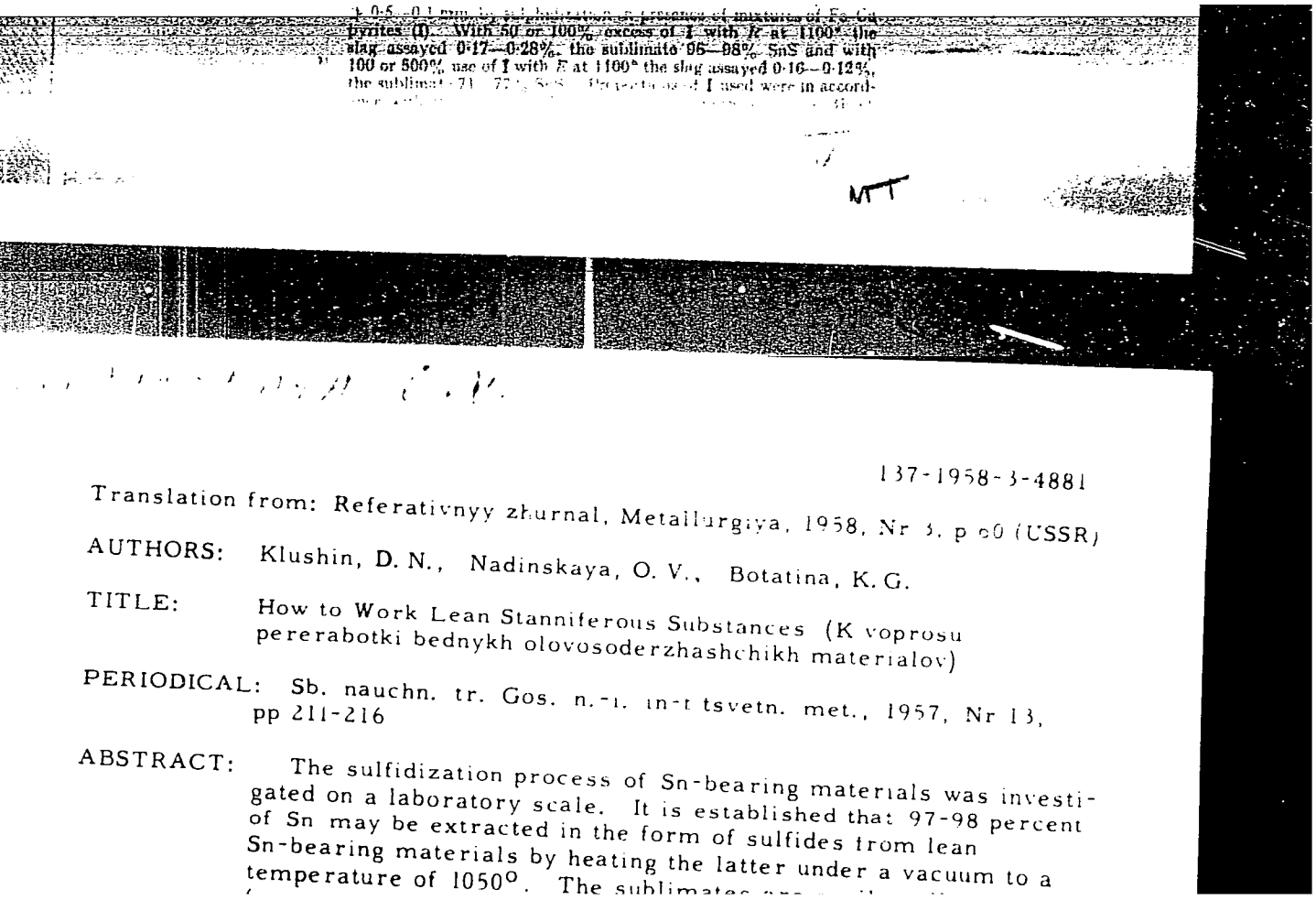
Monthly List of East European Accessions (EEAI) LC, Vol. 9, no. 1, Jan. 1960.

Uncl.

NADINSKAYA, O.V.

3

Sulphidization of stanniferous materials and sublimation of tin sulphides in vacuum. D. N. Klushin and O. V. Nadinskaya (*Zh. prikl. Khim.* 1956 29 1193—1201). A method is described for the extraction of tin from stanniferous slag by means of a reverberatory (*R*) or electric (*E*) furnace at 1050—1100° and constant pressure > 0·5—0·1 mm. by sulphidization in presence of mixtures of Fe-Cu pyrites (*P*). With 50 or 100 [illegible] of *P* with *R* at 1100° the



pyrites (I). With 50 or 100% excess of I with *K* at 1100° the slag assayed 0·17—0·28%, the sublimate 96—98% SnS and with 100 or 500% use of I with *F* at 1100° the slag assayed 0·16—0·12%, the sublimat[illegible] I used were in accord-

MTT

137-1958-3-4881

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 80 (USSR)

AUTHORS: Klushin, D. N., Nadinskaya, O. V., Botatina, K. G.

TITLE: How to Work Lean Stanniferous Substances (K voprosu pererabotki bednykh olovosoderzhashchikh materialov)

PERIODICAL: Sb. nauchn. tr. Gos. n.-i. in-t tsvetn. met., 1957, Nr 13, pp 211-216

ABSTRACT: The sulfidization process of Sn-bearing materials was investigated on a laboratory scale. It is established that 97-98 percent of Sn may be extracted in the form of sulfides from lean Sn-bearing materials by heating the latter under a vacuum to a temperature of 1050°. The sublimates [illegible]

KLUSHIN, D.N.; NADINSKAYA, O.V.; BOGATINA, K.G.

Studying the interaction of stannous and tin oxides with tin sulfide. Sbor. nauch. trud. GINTSVETMET no.15:180-191 '59.
(MIRA 14:4)
(Tin—Metallurgy)(Metals, Effect of temperature on)

SOV/80-32-2-6/56

AUHTORS: Klushin, D.N., Nadinskaya, C.V., Bogatina, K.G.

TITLE: The Problem of the Interaction of Lower Oxide and Oxide of Tin With Tin Sulfide (K voprosu o vzaimodeystvii zakisi i okisi olova s sul'fidom olova)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol XXXII, Nr 2, pp 273-280 (USSR)

ABSTRACT: At temperatures between 600 - 1,100°C an interaction of sulfide and the lower oxide of tin in a neutral atmosphere does not take place. In an atmosphere of nitrogen the lower tin oxide is decomposed at these temperatures. At 600 - 950°C the reaction $3SnO \rightarrow Sn + Sn_2O_3$ prevails, at 950 - 1,100°C the reaction $2SnO \rightarrow Sn + SnO_2$. In the temperature interval 750 - 1,100°C an interaction of sulfide with tin oxide does not take place. At temperatures above 950°C the lower tin oxide and the sulfide form a eutectic structure. The above-mentioned investigations are important for the concentration of poor tin ores.

Card 1/2

SOV/80-32-2-6/[illegible]

The Problem of the Interaction of Lower Oxide and Oxide of Tin With Tin Sulfide

There are 5 tables, 4 graphs, 1 diagram, and 6 references, 4 of which are Soviet and 2 German.

SUBMITTED: July 26, 1957

Card 2/2

18(5) SOV/80-32-3-3/43

AUTHORS: Klushin, D.N., Nadinskaya, O.V.

TITLE: The Investigation of the Interaction of Tin Sulfide With Sulfur Dioxide (K issledovaniyu vzaimodeystviya sul'fida olova s sernistym gazom)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol XXXII, Nr 3, pp 482-485 (USSR)

ABSTRACT: The article continues the investigations of [Ref 1-3] concerning the extraction of tin from poor ores. Sulfur dioxide was passed over tin sulfide at a rate of 500 cm^3/min. The temperature ranged from 550 to 1,100°C. The date of Table 1 and Figure 2 shows that the maximum weight increase is at 700°C. In the interval between 550 and 800°C the reacting substance consists of tin oxide, sulfate, sulfides and metallic tin. Above 800°C the tin sulfate is practically absent. This corresponds to the results published in [Ref 4] that SO_2 oxidizes metal sulfides and reduces sulfur at the same time. At low temperatures prevail sulfates, at higher temperatures oxides.

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SOV/80-32-3-3/43

The Investigation of the Interaction of Tin Sulfide With Sulfur Dioxide

There are 2 tables, 1 diagram, 1 graph, 1 photo and 4 references, 3 of which are Soviet and 1 German.

SUBMITTED: September 6, 1957

Card 2/2

KLUSHIN, D.N.; NADINSKAYA, O.V.; Prinimala uchastiye: BOGATINA, K.G., laborant

Studying the mechanism and the kinetics of tin sulfide oxidation by atmospheric and pure oxygen. Sbor. nauch. trud. Gintsvetmeta no.18:350-363 '61. (MIRA 16:7)

(Tin sulfide) (Oxidation)

S/080/61/034/007/007/016
D223/D305

AUTHORS: Klushin, D.N., and Nadinskaya, O.V.

TITLE: Investigation of the reaction of stannous and stannic oxide with iron sulphide

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 7, 1961, 1461-1469

TEXT: The reaction of metallic oxides with sulphides is of great metallurgical interest, in particular reaction with pyrites and iron sulphide. This reaction is particularly important in the case of non-ferrous metals especially in the extraction processes. The present work deals with mechanism and kinetics of these reactions for the temperature interval 600-900°C. The set-up used for the sulphidation process of stannous and stannic oxide with iron sulphide is shown in Fig. 1. The experiments are then described in detail, the results showing that interaction of stannous oxide with iron sulphide at a comparatively low temperature (600°C)

Card 1/5

agrees with previous work by D.N. Klushin, O.V. Nadinskaya, and K.G. Bogatina (Ref. 5: ZhPKh., 32, 2, 176, 1959), and follows the reaction:

$$3SnO = Sn_2O_3 + Sn \quad (1)$$

where the ratio of trioxides to metallic tin in the residue is found to be 2. Then as the temperature increases to 750°C and the formation rate of tin sulphide increases, the quantity of tin oxides and metallic tin decreases indicating that the simultaneous reaction

$$2SnO = SnO_2 + Sn \quad (2)$$

is taking place. At a higher temperature 900°C, the oxide and metallic tin content decreases which indicates that reactions (1) and (2) are practically absent. It is also shown that molecular rations of magnetic iron oxide and tin sulphide at all temperatures and Sn : S ratios equal 1/3 which indicates that the principal reaction in the sulphidation of stannous oxide with iron sulphide is:

$$4SnO + 3FeS = 3SnS + Fe_3O_4 + Sn. \quad (3)$$

The isobaric-isothermal potential of the above reaction for temperature T is given by

$$Z = 8709 - 46.46T \lg T - 1.36 \cdot 10^{-3} T^2 + 111.2 T.$$

This shows that reaction (3) could take place at 400°C and higher temperatures which agrees with experimental data. Hence it is obvious that for the temperature interval 600-750°C, the decomposition of SnO follows reactions (1) and (2) with the simultaneous reaction (3). At 750°C and higher, only reaction (3) takes place perhaps with a negligible extent of slight side-secondary reactions. The interaction of stannic oxide with iron sulphide was investigated at 600, 700, 900 and 1000°C for 15 and 60 minutes and with charges containing 1.5 gr. of SnO_2 and 0.9 gr. of FeS which corresponds to equiatomic proportions of tin and sulphur in charges. The results are given in tabulated form. The products of interaction of SnO_2 and FeS obtained were tin sulphide, magnetic iron oxide and sulphur dioxide hence the reaction is as follows:

$$5SnO_2 + 6FeS - 5SnS + 2Fe_3O_4 + SO_2 \qquad (4)$$

Card 3/5

Investigation of the reaction ...

and its isobaric-isothermal potential is given by

$$Z = 250792 + 7.54T \lg T - 6.86 T^2 \cdot 10^{-3} - 124.7 T.$$

This gives a practical operating temperature for reaction (4) of 1000°C. There are 8 figures, 5 tables and 6 references: 5 Soviet-bloc and 1 non-Soviet-bloc.

SUBMITTED: June 24, 1960

Card 4/5

KLUSHIN, D.N.; NADINSKAYA, O.V.; Prinimali uchastiye: BOGATINA, K.G.; SHELEKHES, T.N.; KUZNETS, T.P.; SAVINA, Ye.V.

Reaction between stannous and stannic oxide and ferric sulfide. Zhur.prikl.khim. 34 no.8:1668-1679 Ag '61. (MIRA 14:8)
(Tin oxide) (Iron oxide)

KLUSHIN, D.N.; NADINSKAYA, O.V.; BOGATINA, K.G.

Investigating the interaction of tin oxide with ferrous sulfide in the presence of carbon. Sbor. nauch. trud. Gintsvetmeta no.19:608-617 '62. (MIRA 16:7)

(Tin oxide) (Sulfuration)

KLUSHIN, D.N.; NADINSKAYA, O.V.; BOGATINA, K.G.; Prinimali uchastiye: SAVINA, Ye.V., nauchnyy sotrudnik; KUZNETS, T.P., mladshiy nauchnyy sotrudnik; SHELEKHES, T.B., laborant; KAYNOVA, I.S., laborant

Investigating the interaction of tin oxide with iron disulfide in the presence of a deoxidizer. Sbor. nauch. trud. Gintsvetmeta no.19:618-630 '62. (MIRA 16:7)

(Tin oxide) (Sulfuration)

KLUSHIN, D.N.; NADINSKAYA, O.V.; BOGATINA, K.G.; Prinimal uchastiye. SHELEKHES, T.D., tekhnik

Investigating the interaction of tin protoxide with ferrous sulfide in the presence of carbon. Sbor. nauch. trud. Gintsvetmeta no.19:631-636 '62. (MIRA 16:7)

(Tin oxide) (Sulfuration)

KLUSHIN, D.N.; NADINSKAYA, O.V.; BOGATINA, K.G.; Prinimal uchastiye: SHELEKHES, T.B., tekhnik

Investigating the interaction of tin protoxide with iron disulfide in the presence of carbon. Sbor. nauch. trud. Gintsvetmeta no.19:637-641 '62. (MIRA 16:7)
(Tin oxide) (Sulfuration)

KLUSHIN, D.N.; NADINSKAYA, O.V.

Reaction of tin dioxide with iron disulfide in the presence of a reducing agent. Zhur.prikl.khim. 35 no.6:1209-1216 Je '62. (MIRA 15:7)

(Tin oxides) (Iron sulfides)

NADINSKAYA, O.V.; KLUSHIN, D.N.; BOGATINA, K.G.

Study of the reactions of tin with ferrous sulfide and ferrous disulfide. Zhur.prikl.khim. 36 no.3:469-474 My '63.
(MIRA 16:5)

(Tin) (Iron sulfides)

KLUSHIN, D.N .; NADINSKAYA, O.V.; BOGATINA, K.G.

Sulfidation of tin peroxide, tin oxide and metallic tin by gaseous sulfur. Zhur. prikl. khim. 38 no.5:972-978 My '65.
(MIRA 18:11)

L 51385-65

ACCESSION NR: AP5010850 UR/0288/65/000/007/0012/0012

AUTHOR: Nadinskiy, M. N.

TITLE: Planetary mill. Class 7, No. 169478

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 7, 1965, 12

TOPIC TAGS: planetary mill, rolling mill, multistrand mill

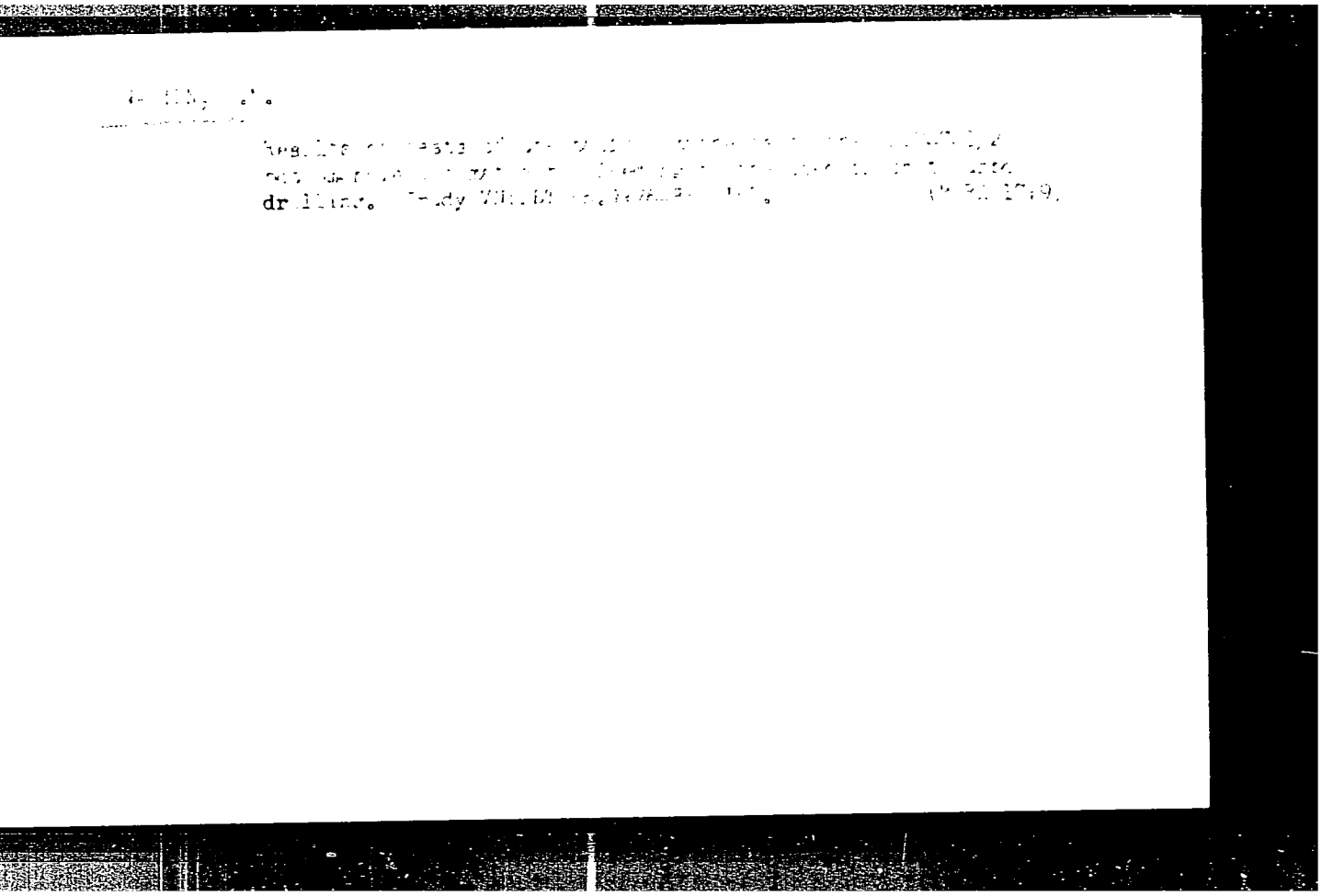
ABSTRACT: This Author Certificate introduces a planetary rolling mill containing a housing, driven back-up rolls, and cages with individually driven planetary working rolls. In order to increase mill efficiency by multistrand rolling, several planetary rolls are mounted in each cage socket. [AZ]

ASSOCIATION: Elektrostal'skiy zavod tyazhelogo mashinostroyeniya (Electrostal' Heavy Machinery Plant)

SUBMITTED: 03Aug63 ENCL: 00 SUB CODE: IE

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4006

Card 1/1



DECEASED

c. '63

1964

NADION, Mikhail Fedotovich

Rock Drilling
Mine Hauling

L 18418-66 EWT(m)/EWP(j)/T JW/RM
ACC NR: AP6003426 (A) SOURCE CODE: UR/0190/66/008/001/0146/0152

AUTHORS: Smirnova, O. V.; Kolesnikov, G. S.; Vlasova, V. A.; Nadir, R. K. 37 B

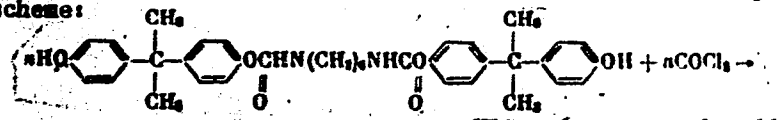
ORG: Moscow Institute of Chemical Engineering im. D. I. Mendeleyev (Moskovskiy khimiko-tekhnologicheskiy institut)

TITLE: Synthesis and investigation of the properties of polyurethane carbonate based on 4-[2-(4-hydroxyphenyl)isopropyl]-phenyl ester of hexamethylene dicarbamic acid and phosgene 1

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 1, 1966, 146-152

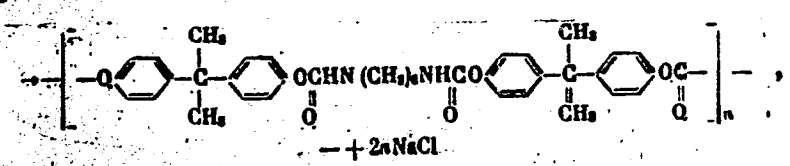
TOPIC TAGS: polyurethane, polycondensation, phosgene, polymer structure

ABSTRACT: The effect of reagent concentration, excess of alkali and phosgene, presence of emulsifiers, and number of phosgenations upon interphase suspension polycondensation of 4-[2-(4-hydroxyphenyl)isopropyl]-phenyl ester of hexamethylene dicarbamic acid and phosgene has been investigated. The basic reaction proceeds according to the scheme:



Card 1/2 UDC: 678.01:53+678.664+678.674

L 18418-66
ACC NR: AP6003426



yielding polyurethane carbonate (I). It was established that the highest values for reduced viscosity (0.42) and highest yield of I (40%) are obtained with the reagent concentration of 0.4 mole/l and at 40% excess of phosgene. Five phosgenations yielded 65% of I having η = 1.2. Its physical and chemical properties were determined. (I) was remarkably inert to alkaline hydrolysis and to organic solvents. Orig. art. has: 2 tables, 5 figures, and 1 equation.

SUB CODE: 07/ SUBM DATE: 04Mar65/ ORIG REF: 001/ OTH REF: 004

Card 2/2 pw

L 33328-65 EWG(j)/EWT(m)/EPF(c)/EPF(n)-2/EPR/EWP(t)/EWP(b) Pr-4/Ps-4/Pu-4
IJP(c) JD/WH/JG

ACCESSION NR: AP5005561 S/0251/65/037/001/0121/0126

AUTHORS: Gvelesiani, G. G.; Bezarashvili, Sh. M.; Nadiradze, A. A. 38 37 B

TITLE: Zirconothermic reduction of europium pentoxide 27 27

SOURCE: AN GruzSSR. Soobshcheniya, v. 37, no. 1, 1965, 121-126

TOPIC TAGS: thermal dissociation, europium compound, zirconium, reduction 27 18

ABSTRACT: Results from an experimental study of zirconothermic reduction of Eu_2O_3 under vacuum are presented. Apparatus described by G. G. Gvelesiani, N. P. Mgaloblishvili, and A. A. Nadiradze (Vysokotemperaturnyye ustanovki dlya issledovaniya vakuumtermicheskikh vosstanovleniy. Trudy Gruzinskogo instituta metallurgii, v. XIV, 1965) was used. Experiments were conducted on briquettes weighing 1.5-2 g and made of mixed powders of C, Eu_2O_3, and Zr. The yield of Zr increased at 1000-1300C (with the increase of the molar ratio of Zr/Eu_2O_3 to 3.75), and then remained constant. The reaction was explosive at the start and slowed down after a few minutes. Raising the temperature increased the rate of reaction at its early stages (see Fig. 1 on the Enclosure). Experimental data were processed mathematically by the method of P. P. Budnikov and A. M. Ginstling

Card 1/3

L 33328-65
ACCESSION NR: AP5005561

(Reaktsii v smesyakh tverdykh veshchestv. Gosstroyizdat, M., 1961) and are presented graphically. It was found that increasing the pressure during the formation of briquettes decreased the yield of Eu and the rate of reaction, while reducing the particle size of Zr from 1+0.5 to 0.25+0.1 mm had the opposite effect. Lowering the particle size of Eu_2O_3 from 2 to 0.05 mm increased the percent yield of Eu from 13 to 85. The reaction was found to involve the solid phases of the ingredients without forming any intermediate products. The optimal pressure was 10^{-2} mm Hg. The process is inhibited by vaporization of Eu and by diffusional retardation. Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: Gruzinskiy institut metallurgii, Tbilisi (Georgian Institute of Metallurgy)

SUBMITTED: 26Oct64 ENCL: 01 SUB CODE: GC

NO REF SOV: 003 OTHER: 000

Card 2/3

L 33328-65

ACCESSION NR: AP5005561

ENCLOSURE: 01

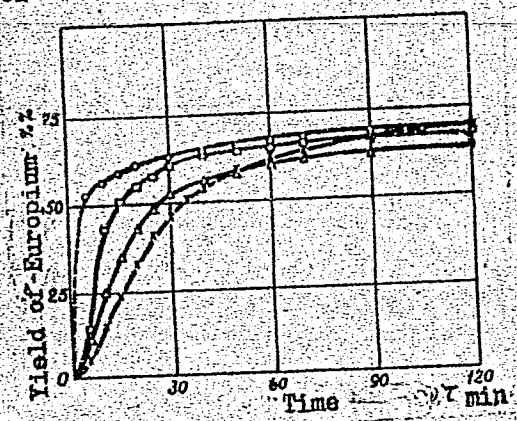


Fig. 1. The influence of temperature and time on the yield of europium: x- 1000C; △- 1050C; □- 1100C; ○- 1200C

Card 3/3

L 15303-65 EWT(m)/EPR/EWP(t)/EWP(b) Ps-4 JD/JW/JG
ACCESSION NR: AP4047870 S/0279/64/000/005/0057/0065

AUTHOR: Gvelesiani, G. G. (Tiflis); Nadiradze, A. A. (Tiflis)

TITLE: Aluminothermic reduction of ytterbium oxide

SOURCE: AN SSSR. Izvestiya. Metallurgiya i gornoye delo, no. 5, 1964, 57-65

TOPIC TAGS: ytterbium oxide, reduction, aluminothermic reduction, optimum condition

ABSTRACT: A study has been made of the thermodynamics, kinetics, and mechanism of the aluminothermic reduction of 99.5%-pure Yb_2O_3 with 99.51% Al. Results of the experiments showed that the equilibrium pressure (P) of Yb vapor in the aluminothermic reduction of Yb_2O_3 is described (with an accuracy of ±3%) by the equation

$$P = 8.953 - \frac{12,666.7}{T} \quad (1254—1473K).$$

Equations have also been composed for the temperature dependence of

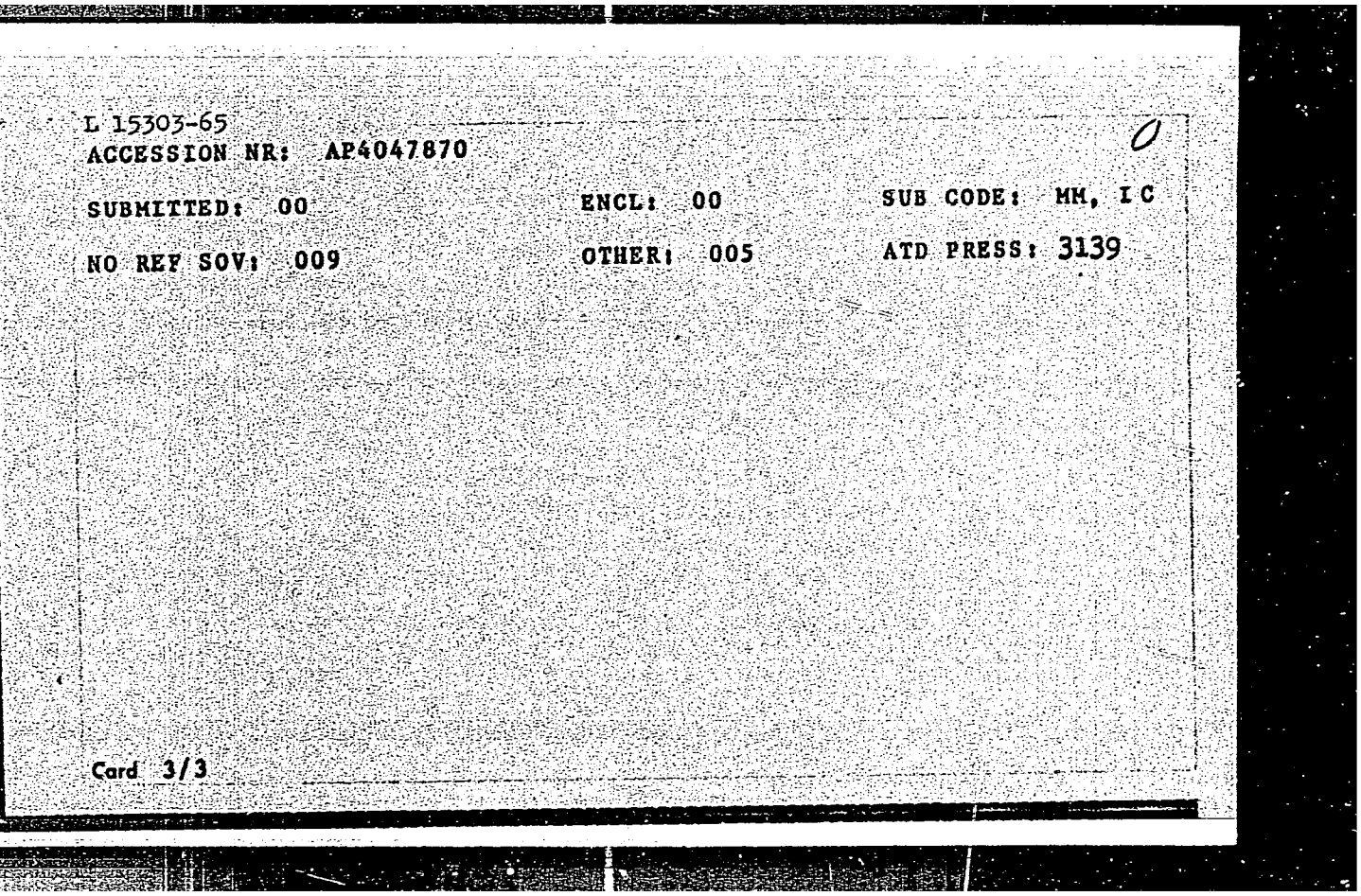
Card 1/3

L 15303-65
ACCESSION NR: AP4047870

the change of isobaric potential for the reactions of the aluminothermic reduction of Yb_2O_3 and for oxidation of molten Yb. The data obtained on the equilibrium pressure of Yb vapor indicated the feasibility of aluminothermic reduction of Yb_2O_3 in a vacuum at temperatures above 1100C. The optimum conditions for the process comprise a charge composition with the Al/Yb_2O_3 molar ratio of 3, a temperature of 1200C, a compacting pressure of 5000—7500 kg/cm^2, a powder grain size from 0.25 + 0.1 to 1 + 0.5 mm, and a vacuum of 0.01—0.001 mm Hg in the system. Aluminothermic reduction of Yb_2O_3 proceeds with the formation of two intermediate products: an Al_xYb_y alloy and ytterbium monoaluminate $YbAlO_3$. In the initial stage of the process, the reduction rate is determined by the speed of Yb vaporization from the alloy. Then, with the accumulation of an intermediate solid "slag," the reaction becomes diffusional. Ytterbium reduced under optimal conditions contains up to 0.11% Al and traces of Ca. Professor V. A. Pazukhin, Doctor of Technical Sciences, is thanked for his interest in the work. Orig. art. has: 5 figures and 9 formulas.

ASSOCIATION: none

Card 2/3



L 15303-65
ACCESSION NR: AP4047870

SUBMITTED: 00 ENCL: 00 SUB CODE: MM, IC

NO REF SOV: 009 OTHER: 005 ATD PRESS: 3139

Card 3/3

NAMICHADZE, A.A.; GVELESIANI, G.G.

Thermodynamics of the lanthano- and ceriothermic reduction of ytterbium oxide. Soob. AN Gruz. SSR 40 no.2:407-412 N '65. (MIRA 19:1)

1. Gruzinskiy institut metallurgii. Submitted April 15, 1965.

NADIRADZE, A.D.

Bearing capacity of concrete under repeated loadings. Soob. AN Gruz. SSR 38 no.1:147-152 Ap '65. (MIRA 18:12)

1. Tbilisskiy nauchno-issledovatel'skiy institut sooruzheniy i gidrotekhniki imeni Vintera. Submitted Nov. 12, 1964.

168000 1031, 1068 1069

27367
S/194/61/000/003/031/046
D201/D306

AUTHORS: Kalatozishvili, N.I., Nadiradze, G.I. and Megrelishvili, R.P.

TITLE: A discrete remote control system using a contactless arrangement of remote control and remote signalling

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 3, 1961, 44, abstract 3 V359 (Soobshch. AN Gruz SSR, 1960, 24, no. 3, 325-327)

TEXT: A description is given of a remote-measurement system (ТИ (TI)) with discrete readings, which utilizes a contactless arrangement of remote control and remote signalling (ТУ-ТС (TU-TS)). The system (C (S)) uses binary counting, since if using decimal counting, the number of the distributor elements would have to be that of the number of scale divisions of the measuring instrument, for an accuracy of measurement equal to that of one scale division. The remote measurement system consists of a transmitter, remote-control

Card 1/2

27367
S/194/61/000/003/031/045
D201/D306

A discrete remote control system...

and remote-signalling arrangement and of a receiver. The previously developed contactless remote control and signalling arrangement is used, with the number of distributor elements equal to the number of binary number digits. The sensing device may consist of any measuring instrument with angular output indication. The transformation of this indication into the code is made by means of a perforated disc and a photo diode 6 digits counter. The Grey binary code is used, as the normal binary code might lead to considerable errors when going from one digit to another. The receiving installation has a decoder and a receiver - milliameter. The decoder has 6 contact relays and 6 resistors. The transposition of the Grey code into a binary one is achieved by a relay circuit. The system of remote measurement does not require any special communication channel and depends little on its state. The accuracy of measurements is arbitrary since it is determined by the number of distributor elements. 2 references. [Abstracter's note: Complete translation]

Card 2/2

ACCESSION NR: AT4021668 S/2748/62/003/000/0057/0066

AUTHOR: Kalatozishvili, N. I.; Nadiradze, G. I.; Megrelishvili, R. P.

TITLE: Linear units for ferrite-diode contactless remote control and remote signalization apparatus with unequal information flow in opposing directions

SOURCE: AN GruzSSR. Institut elektroniki, avtomatiki i telemekhaniki. Trudy*, v. 3, 1962, 57-66

TOPIC TAGS: remote control, remote signalization, linear unit, contactless remote control, unequal information flow, cost reduction, size reduction, optimal equipment

ABSTRACT: Several variants of linear ferrite-diode contactless control units for remote control and remote signalization are described. These units are used in systems where unequal amounts of information flow in opposite directions. The purpose of the investigation is to design units without excess distribution elements, so as to keep the cost and size down. The different features of the variants are discussed in some detail. All variants were tested under laboratory conditions, and it is concluded that none can be regarded superior to the others, so that the choice of the ultimate variant depends on the specific conditions.

Card 1/2

ACCESSION NR: AT4021668

Orig. art. has: 7 figures and one formula.

ASSOCIATION: Institut elektroniki, avtomatiki i telemekhaniki AN GruzSSR (Institute of Electronics, Automation, and Telemechanics, AN GruzSSR).

SUBMITTED: 00 DATE ACQ: 07Apr64 ENCL: 00

SUB CODE: CG, IE NR REF SOV: 002 OTHER: 000

Card 2/2

ACCESSION NR: AT4040443 S/2748/63/004/000/0089/0095

AUTHORS: Kalatozishvili, N. I.; Nadiradze, G. I.; Megrelishvili, R.P.

TITLE: Discrete telemetering system for a comprehensive remote-control, telesignalization, and telemetering apparatus

SOURCE: AN GruzSSR. Institut elektroniki, avtomatiki i telemekhaniki. Trudy*, v. 4, 1963, 89-95

TOPIC TAGS: analog digital conversion, automatic control system, digital data transmission

ABSTRACT: A discrete system is described designed to enable a remote control and telesignalization system to perform telemetering functions without the use of an additional channel. The telemetered quantities are measured intermittently by means of an analog to digital (Gray code) converter of the slotted disc type. Several schemes for Gray to binary code conversion are described. The pulsed output

Card 1/5

ACCESSION NR: AT4040443

of the analog to digital converter is sent to the line by illuminating photodiodes with commutator lamps. The telemetered pulses are converted into dc which is measured by the receiving instrument. The decoder used for this purpose is described briefly. The accuracy of the over-all system is determined by the number of binary digits employed, and the circuitry errors are minimal. The system has passed laboratory tests and is presently in operation. Orig. art. has: 6 figures and 1 table.

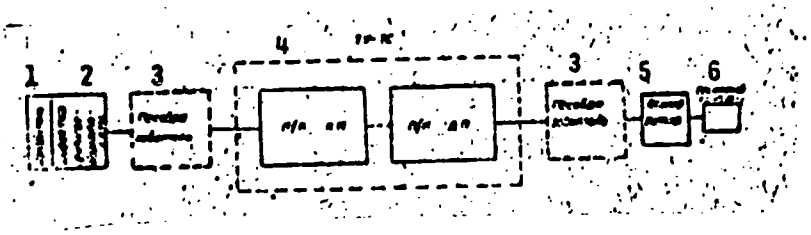
ASSOCIATION: Institut elektroniki, avtomatiki i telemekhaniki AN GruzSSR (Institute of Electronics, Automation, and Telemechanics, AN GruzSSR)

SUBMITTED: 00 ENCL: 03

SUB CODE: DP NR REF SOV: 002 OTHER: 000

Card 2/5

ACCESSION NR: AT4040443 ENCLOSURE: 01



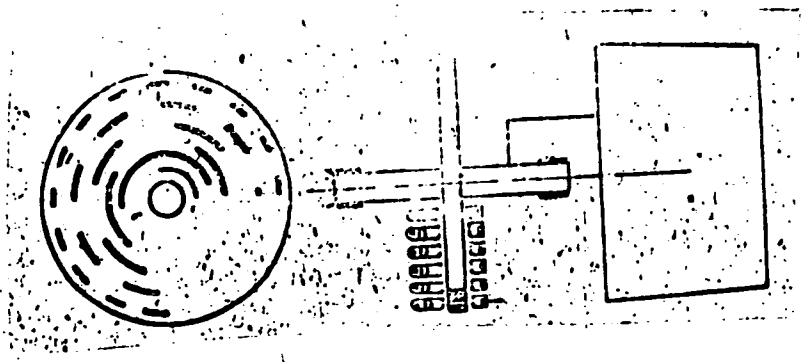
Block diagram of telemetering system

1 - meter, 2 - coder, 3 - converter, 4 - remote control and signaling system, 5 - decoder, 6 - indicator

Card 3/5

ACCESSION NR: AT4040443

ENCLOSURE: 02



Conversion of continuous readings into binary signals

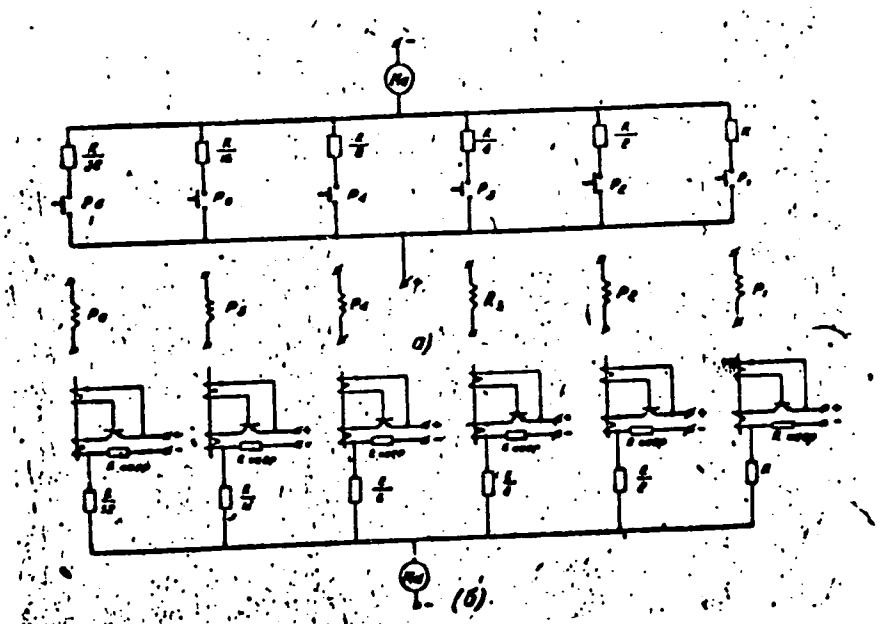
Card 4/5

ACCESSION NR: AT4040443

ENCLOSURE: 03

Decoder, which converts the telemetering pulses into direct current

a - with relays
b - contactless



Card 5/5

L 01035-67 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) GD

ACC. NR: AT6015126 SOURCE CODE: UR/0000/65/000/000/0052/0058

AUTHOR: Kalatozishvili, N. I.; Nadiradze, G. I.; Chkoniya, D. V. 49 B+1

ORG: none

TITLE: Transistorized supervisory control system 14

SOURCE: AN GruzSSR. Institut elektroniki, avtomatiki i telemekhaniki. Skhemy avtomaticheskogo upravleniya (Automatic control circuits). Tiflis, Izd-vo Metsniyereba, 1965, 52-58

TOPIC TAGS: remote control, supervisory control, transistorized circuit

ABSTRACT: The development of a new semiconductor-device supervisory-control system for industrial plants is reported; a two-cycle distributor is used in the system. Principal connection diagrams of a control (dispatcher's) station and a plant station are shown. Each station comprises: a distributor, a line unit, a coincidence unit, output gate ("contactless") relays, and a power-supply unit. The odd distributor triggers respond to positive a-c half-waves; the even, to negative half-waves. The operation of both stations is briefly explained. Relatively long 10-msec pulses used in the connection line are expected to have high noise immunity. A laboratory model was built in 1962; the first complete set of equipment was installed at a Tbilisi plant in 1963. Orig. art. has: 3 figures.

SUB CODE: 09 / SUBM DATE: 29Sep65 / ORIG REF: 003

amm

Card 1/1

NADIRADZE, N.

Flora in the vicinity of Tiflis [in Georgian with summary in Russian]. Zam.po sist.i geog.rast. no.17:161-166 '53.
(Tiflis--Botany) (MLRA 8:9)

NADIRADZE, N. G.

28310

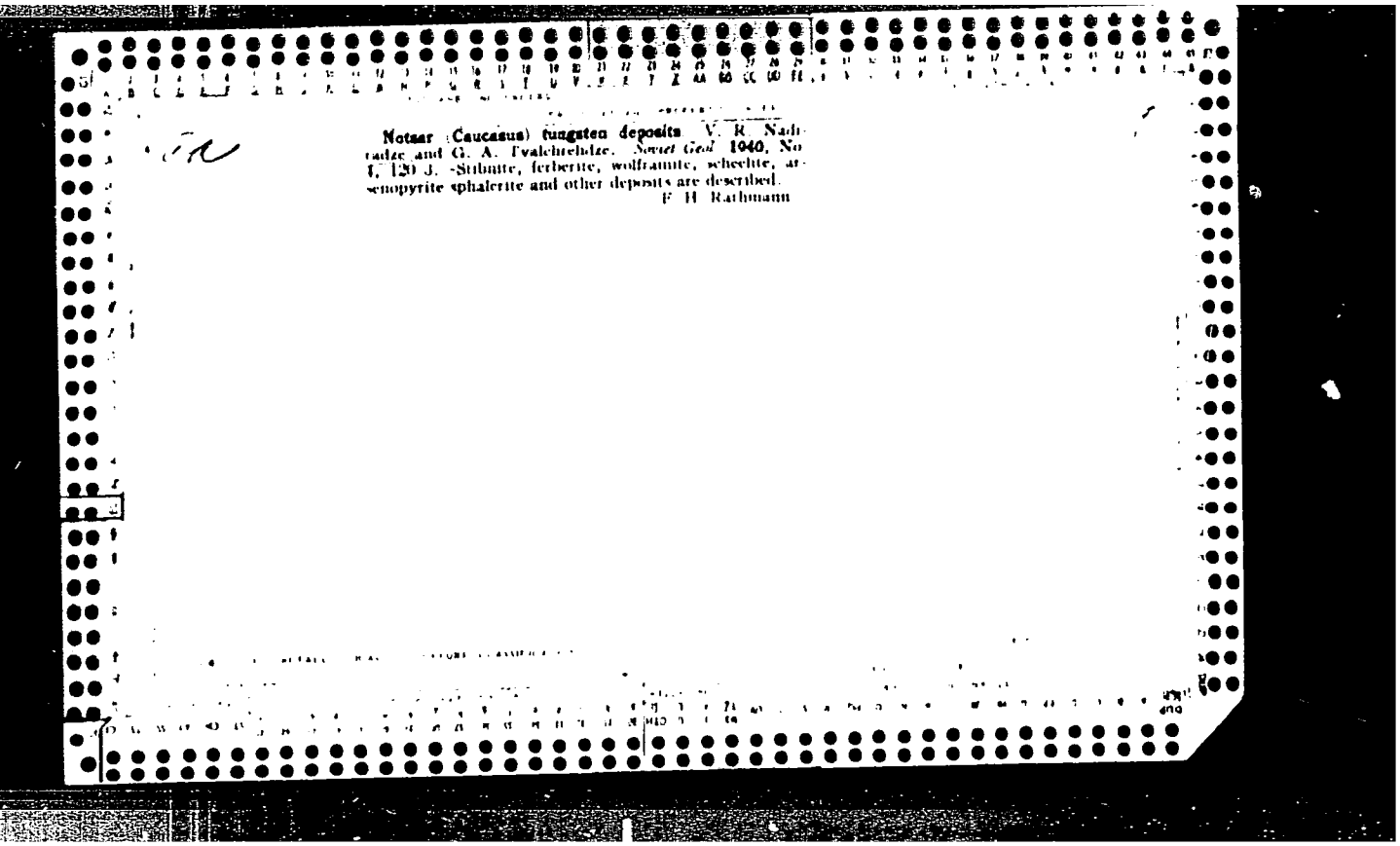
Proizrastanii viola mirabilis L. V. gruzii. Zamyetki po sistyematikye i gyeografii rastyeniy (akad nauk. gruz.SSR. In-T Botaniki), Byp. 15, 1949, S.83-85-ryezyumye na gruz. yaz.-Bibliogr. 11, nazv.

SO. LETOPIS NO. 34

KALANDADZE, L.P.; BATIASHVILI, I.D.; NEBIYERIDZE, E.Ya. [deceased];
NADIRADZE, N.V.

Studying the European corn borer under conditions prevailing in Georgia [with summary in English]. Zool. zhur. 38 no.4:565-578 Ap '59. (MIRA 12:5)

1.Chair of Zoology and General Entomology of the Georgian Agricultural Instituta, Tbilisi.
(Georgia--European corn borer)



Notsar (Caucasus) tungsten deposits. V. R. Nadiradze and G. A. Tvalchrelidze. *Soviet Geol.* 1940, No. 1, 120 p. Stibnite, ferberite, wolframite, scheelite, arsenopyrite sphalerite and other deposits are described.
F. H. Rathmann

NADIRADZE, V. R.

Nadiradze, V. R. - "Intrusions and the ore manifestations in the Zekar mountain - pass area," A commemorative collection of transaction dedicated to the 25th anniversary of the Institute, (Gruz. politekhn. in-t im. Kirova, No 17), Tbilisi, 1948, p. 329-50, (In Georgian, resume in Russian), - Bibliog: 8 items

SO: U- 5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

MADIRADZE, V.R.

Georgia (Transcaucasia) - Petrology, Igneous Rocks

Gairma neo-intrusion (Georgian S.S.R.) 2 ml.
AN SSSR 83 No. 3, 1952

SO: Monthly List of Russian Accessions, Library of Congress, _____1953, Uncl.

[redacted], V. P.

G [redacted] - Georgia (Transcaucasia); Rock., Igneous

Layshura neo-intrusion (Georgia .S. R.). Dokl.
AN SSSR 83 No. 4, 1952

SO: Monthly List of Russian Accessions, Library of Congress, _____ 1953, Uncl.

NADIRADZE, V. R.

USSR/ Geology

Card 1/1 Pub. 46 - 10/19

Authors : Nadiradze, V. R.

Title : The Zekarsk Neo-intrusion

Periodical : Izv. AN SSSR. Ser. geol. 3, 137 - 142, May - Jun 1954

Abstract : Data are presented regarding the structure of the Neo-intrusion discovered in 1945/1946 in the Zekarsk region of the Gruz-SSR. Seven USSR references (1934 - 1950). Table; drawings.

Institution: .....

Submitted: .....

NADIRADZE, V. R.

Rare and disperse (minor) elements in magmatic rocks and ores of endogenous deposits of Adzharo-Trialeti region. Soob.AN Gruz.SSR 23 no.1:55-60 Jl '59. (MIRA 13:1)

1. AN GruzSSR, Geologicheskiy institut, Tbilisi. Predstavleno akademikom G.S.Dzotsenidze.
(Azerbaijan--Mineralogy) (Metals, Rare and minor)

MALYUGA, D.P.; NADIRADZE, V.R.; CHARGEYSHVILI, Ya.M.; MAKAROVA, A.I.

Biogeochemical prospecting in the high-mountain area of western Georgia. Geokhimiia no.4:330-338 '60. (MIRA 13:10)

1. V.I. Vernadskiy Institute of Geochemistry and Analytical Chemistry, Academy of Sciences, U.S.S.R., Moscow, and the Geological Institute, Academy of Sciences of Georgia, Tbilisi. (Adzhar A.S.S.R.--Geochemical prospecting)

NADIRADZE, V.R.; NAZAROV, Yu.I.

Conditions of formation and regularities in the location of endogentic deposits in southeastern Georgia. Zakonom. razm. polezn. iskop. 5: 267-282 '62. (MIRA 15:12)

1. Geologicheskiy institut AN Gruzinskoy SSR i Geologicheskoye upravleniye pri Sovete Ministrov Gruzinskiy SSR.
(Georgia—Ore deposits)

NADIRADZE, V.R.; BEZHANISHVILI, G.N.

Genesis and prospects for finding iron ore [illegible]
Poladauri group. Soob. AN Gruz. SSR [illegible]

1. AN Gruzinskoy SSR, Geologicheskiy institut, Tbilisi. [illegible]
mitted July 28, 1961.

VH.DIKHDZE V.K.

(21)

S/011/63/000/001/002/002
A006/A101

AUTHOR: Azizbekov, Sh. A.

TITLE: The Third All-Union Conference on regularities in the formation and distribution of endogenous mineral resource deposits

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, no. 1, 1963, 126 - 128

TEXT: The Conference was held in Baku from September 18 to 23, 1962; it was attended by 455 representatives from scientific and industrial geological organizations including 24 Academicians and Corresponding Members of AS USSR and AS of various republic, 49 Doctors-Professors and 164 Candidates of Geological and Mineralogical Sciences. The Conference was opened by Academician D. I. Shcherbakov, secretary of OGGN, AS USSR. The program of the Conference was divided into three main groups: a) regularities in the formation and distribution of endogenous deposits in the Caucasus; b) regularities in the formation and distribution of endogenous deposits of other folding regions of the Alpine cycle; c) general problems of metallogeny. In group a) reports on basic features

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of metallogeny and models of detailed metallogenic charts of the Caucasus were delivered by Sh. A. Azizbekov and R. N. Abdullayev (in Azerbaydzhan), S. S. Mkrtychyan (in Armenia), G. A. Tvalchrelidze and Yu. I. Nazarov (in Georgia) and V. I. Orobey (in the Northern Caucasus); V. I. Smirnov reported on peculiarities in magmatism and metallogeny of the geosyncline and plateau stage in the evolution of the Western section of Northern Caucasus. Reports were delivered on magmatism and metallogeny in the Dashkesan ore region (M. A. Kashkay, M. A. Mustafabeyli) Southern Georgia (V. R. Nadiradze) the Sevan-Akera zone (S. M. Suleymanov) the Allaverdy-Bolina ore region (T. Sh. Gogishvili) and in the small Caucasian intrusives. G. S. Dzotsenidze reported on "Paleogenous volcanism in the Caucasus and metallogeny related to it"; V. N. Kotlyar on "Deposit types related to paleovolcanism"; papers were delivered on pyrite deposits in the Somkhito-Karabakh and the Sevan-Akera zone (P. F. Sopko); Northern Caucasus (N. S. Skripchenko, V. I. Buadze) the Chubukhlu-Tanzutsk ore region (S. Sh. Sarkisyan). Reports were read on polymetalic deposits in Northern Caucasus (A. M. Krasnovidova), North-West Caucasus (G. P. Kornev) and the Mekhmany ore field (N. V. Zaytseva). Other reports dealt with gold (N. Ye. Gukhman, D. G. Saliya) mercury (D. V. Abuyev) and rare metal (F. V. Mustafabeyli) mineralization. Group 2 included reports on

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NADIRADZE, V.R.

Igneous activity and metallogeny in southern Georgia. Zakonom.razm. polezn.iskop. 7:354-356 '64. (MIRA 18:6)

1. Geologicheskiy institut AN GruzSSR.

NADIRADZE, V.R.

Altaite in the sulfide ores of Adzharistan. Soob. AN Gruz. SSR 34 no.3:605-608 Je '64 (MIRA 18:1)

1. Geologicheskiy institut AN Gruzinskoy SSR, Tbilisi. Submitted February 27, 1964.

137-[illegible]-11658

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 61 (USSR)

AUTHORS: Mikeladze, G.Sh., Nadiradze, Ye.M., Pagava, T.A., Tskhvediani, R.N.

TITLE: Use of Aluminum-silicon as Reductant in Smelting Ferromanganese of Low Carbon Content (Ispol'zovaniye silikoalyuminiya v kachestve vosstanovitelya pri vyplavke ferromargantsa s malym soderzhaniyem ugleroda)

PERIODICAL: Tr. In-ta metalla i gorn. dela AN GruzSSR, 1957, Vol 8, pp 43-51

ABSTRACT: Test heats were run in a two-electrode, single-phase, 30-40 kw furnace, magnesite lined, with a power density in the hearth of 2.7-3.6 kw/dm^2, employing a charge of Mn ore or converted Mn slag and lime, the reductant employed being Si-Al with 36.06% Si and 44.02% Al. It is established that when Mn ore is employed the oxidation of the Si proceeds more intensively and results in $\leq$1% Si content in the alloy. This is explained by the presence of Mn_3O_4 in the ore, whereas the slag contains MnO only. Optimum results in terms of Si content in the alloy and MnO content in the waste slag when Mn slags are employed are

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Use of Aluminum-silicon (cont.)

attained when 0.5-5 mm Si-Al is charged onto the surface of the slag introduced. The C contents of the alloy fluctuated from 0.09 to 0.34%, the higher values being the result of periodic immersion of the electrodes in the slag, which cannot be permitted to happen when the standard three-phase furnaces are used. The concentration of P in the alloy was in direct relationship to the [P] in the charge, as Al is highly reductive of P_2O_5. When Mn slag is employed, [P] did not exceed 0.08%. The [Mn] in alloys smelted from Mn ore attained 84.64% while that in metal smelted from Mn slag attained 85.57%. Calculations of unit ore consumption per ton of alloy are presented, although it is noted that these figures may be cut down, possibly, when larger furnaces are used for the smelting. Bibliography: 3 references.

A.Sh.

1. Ores--Processing 2. Aluminum silicon--Application 3. Blast furnaces--Performance

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SOV/137-59-5-9842

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 5, p 52 (USSR)

AUTHORS: Mikeladze, G.Sh., Nadiradze, Ye.M., Pagava, T.A., Tskhvediani, R.N.

TITLE: Electric Smelting of Silico-Aluminum From Coke and Tkibuly Shale Cinders

PERIODICAL: Tr. In-ta metallurgii AS Georgian SSR, 1958, Vol 9, pp 59 - 68

ABSTRACT: The authors investigated the possibility of obtaining Si-Al from the coke and cinders of Tkibuly shales. The cinders contained (in %): SiO_2 54.9, Al_2O_3 30.1, Fe_2O_3 10.8. The smelts were carried out in a one-phase electric furnace of 175 kva capacity with magnesite lining. An alloy of the following composition was obtained (in %): Si 39.8, Al 30.8, Fe 26.79. The alloy can be recommended to be used as a complex deoxidizer in steel production and as a reducing agent to obtain Fe-alloys by the metallo-thermic method. The consumption of electric power under industrial conditions is 8 - 9,000 kw-hrs/ton of Si-Al; the cost of Si-Al obtained on the base of Tkibuly shales is lower than that of 75% Fe-Si.

V.B.

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KASHAKASHVILI, N.V., prof., otv.red.; GAMBASHIDZE, R.B., kand.nauk, otv. red.; AGLADZE, R.I., prof., red.; BERIDZE, V.M., prof., red.; GIGINEYSHVILI, K.M., red.; GONIASHVILI, T.B., kand.nauk, red.; TAVADZE, F.I., prof., red.; KEKELIDZE, M.A., doktor nauk, red.; MIKELADZE, G.Sh., kand.nauk, red.; NADIRADZE, Ye.M., kand.nauk, red.

[Metallurgical terminology] Metallurgicheskaia terminologiia. Otv.red.N.V.Kashakashvili i R.B.Gambashidze. Tbilisi, 1959. 324 p. (MIRA 13:2)

1. Akademiya nauk Gruzinskoy SSR, Tiflis. Institut yazykoznaniya.
(Metallurgy--Dictionaries)
(Russian language--Dictionaries--Georgian)
(Georgian language--Dictionaries--Russian)

MIKELADZE, G.Sh., kand.tekhn.nauk; NADIRADZE, Ye.M., kand.tekhn.nauk; GOGORISHVILI, B.P., inzh.; TSKHVEDIANI, S.N., inzh.; CHIKASHUA, D.S., inzh.; METREVELI, A.I., inzh.

Making ferrochromium in closed, electric ore reducing furnaces. Biul. TSIICHM no.1:18-23 '61. (MIRA 14:9)
(Iron-chromium alloys--Electrometallurgy)

MIKELADZE, G.Sh.; NADIRADZE, Ye.M.; BEZARASHVILI, Sh.M.; DGEBUADZE, G.A.; TSKHVEDIANI, R.N.; CHIKASHUA, D.S.; METREVELI, A.I.

Making ferrosilicon in a closed electric furnace. Stal' 21 no.5: 419-422 My '61. (MIRA 14:5)

1. Institut metallurgii AN GSSR i Zestafonskiy zavod ferrosplavov.
(Ferrosilicon—Electrometallurgy)

REZNICHENKO, V.A.; TKACHENKO, V.A.; MIKELADZE, G.Sh.; KARYAZIN, I.A.; KOZLOV, V.M.; NADIRADZE, Ye.M.; SOLOV'YEV, V.I.; GOGORISHVILI, B.P.; Prinimali uchastiye: PKHAKADZE, Sh.S.; METREVELI, A.I.; CHIKASHUA, D.S.; KHROMOVA, N.V.; KAVETSKIY, G.D.; TSKHVEDIANI, R.N.; ARABIDZE, T.V.

Making titanium slag in an electric closed reduction furnace. Titan i ego splavy no.8:28-40 '62. (MIRA 16:1)
(Titanium--Electrometallurgy)

MIKELADZE, G.Sh.; NADIRADZE, Ye.M.; PKHAKADZE, Sh.S.; GOGORISHVILI, B.P.; DGEBAUDZE, G.A.; SOLOSHENKO, P.S.; SEMENOV, V.Ye.; BARASHKIN, I.I.; SHIRYAYEV, Yu.S.; POSPELOV, Yu.P.; KATSEVICH, L.S.; ROZENBERG, V.L.; Prinimali uchastiye: LORDKIPANIDZE, I.S.; TSKHVEDIANI, R.N.; DZODZUASHVILI, A.G.; DUNIAVA, A.G.; PEKARSKIY, L.F.; GRITSENYUK, Yu.V.; ZHELTOV, D.D.; LUZANOV, I.I.; GLADKOVSKIY, V.P.; PODMOGIL'NYY, V.P.; VOROPAYEV, I.P.; BRIKOVA, O.V.; VRUBLEVSKIY, Yu.P.; KLYUYEV, V.I.; BAYCHER, M.Yu.; LOGINOV, G.A.; SHILIN, V.K.; POPOV, A.I.; ZASLONKO, S.I.

Industrial experiments in the smelting of 45 o/o ferrosilicon in a heavy-duty closed electric furnace. Stal' 25 no.5:426-429 My '65. (MIRA 18:6)

1. Gruzinskiy institut metallurgii (for Lordkipanidze, TSkhvediani, Dzodzuashvili, Guniava). 2. Nauchno-issledovatel'skiy i proyektnyy institut metallurgicheskoy promyshlennosti (for Brikova, Vrublevskiy, Klyuyev). 3. Vsesoyuznyy nauchno-issledovatel'skiy institut elektrotermicheskogo oborudovaniya (for Baycher, Loginov, Shilin, Popov, Zaslonko).